

UNITED STATES PATENT APPLICATION

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TABLE WITH DRAWER

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TABLE WITH DRAWER

BACKGROUND OF THE INVENTION

Cross-Reference to Related Applications

[001] This application claims priority to and the benefit of United States Provisional Patent Application Serial No. 60/450,611, entitled Table with Drawer, which was filed on February 27, 2003, and this application is a continuation-in-part of U.S. Patent Application Serial No. 29/179,959, entitled Table with Drawer, which was filed on April 17, 2003, each of which is incorporated by reference in its entirety.

Field of the Invention

[002] The present invention generally relates to tables and, in particular, to a table that includes a drawer.

Description of Related Art

[003] Conventional tables are used for a variety of purposes and come in a wide array of designs. In some situations, it is desirable to have a smaller table for personal or individual use. For example, persons living in a small space, such as a studio apartment, may choose to use a smaller personal-sized table on which to dine or perform other tasks. Other persons may use a table to place beside a chair for the convenience of holding objects while reading, watching television or listening to the radio. Still others may use tables to perform tasks such as writing, working, or using a computer.

[004] Conventional tables often include table tops constructed from wood, particle board or metal. Table tops constructed from wood, particle board or metal, however, are often relatively heavy and this may make the table awkward or difficult to move. Conventional table tops constructed from wood or metal are also relatively expensive and the table tops must generally be treated or finished before use. For example, table tops constructed from wood must generally be sanded and painted, and metal table tops must be formed into the desired shape and painted or otherwise finished. In addition, these relatively heavy table tops increase the cost of transportation, shipping and storage of the tables.

[005] In order to decrease the weight of conventional tables, table tops can be constructed from relatively thin, light-weight materials. Disadvantageously, these light-weight table tops frequently require reinforcing members or other structural parts such as frames, railings, brackets and the like to strengthen the table top. While these additional parts may increase the strength of the table top, the additional parts also increase the weight of the table. In addition, these additional parts increase manufacturing costs and the table may require additional time to assemble. Furthermore, these additional parts may have sharp edges that can injure the user's legs, arms or other body parts.

[006] Known tables may also allow the height of the table to be adjusted to suit the needs of the user. For example, the length of the table legs may be increased or decreased by a telescoping assembly. Disadvantageously, telescoping assemblies are relatively heavy because they include overlapping components. Additionally, conventional tables may use other mechanisms to allow the height of the table to be adjusted, but these devices are often complex and require additional parts, which may

increase the costs to manufacture and assemble the table. These complex designs may also result in tables that are difficult for the average consumer to use.

[007] Many conventional tables include four legs in order to support the table top above a surface such as the floor. The four separate legs may undesirably increase the weight of the table. In addition, the four legs may require four separate height-adjustment mechanisms, such as telescoping assemblies, which may further increase the weight of the table. Further, the four separate legs may require four separate attachment mechanisms to attach the legs to the table top, which may also increase the weight, cost and complexity of the table.

[008] Conventional card tables, for example, include four separate legs and each leg is typically pivotally connected to the table top by a brace. The brace allows each leg to individually move between an extended position in which the legs extends away from the table top and a collapsed position in which the leg folds against the lower surface of the table top. Known card tables may attempt to reduce the inconvenience of individually folding the legs against the table top by coupling two of the legs together by a long connecting rod. This may increase the stability of the table top and enable the user to simultaneously fold two legs into the collapsed position. The connecting rods, however, increase the cost of the table, reduce space under the table top, and may easily break or become disconnected.

[009] Conventional tables may also detachably connect the legs to the table top to allow the user to more easily collapse, move and store the table. Disadvantageously, the detachable legs often create a table that is not sturdy or stable. Additionally, moving this type of table when the legs are still attached is often difficult because the legs may undesirably detach and the table may collapse. In order to keep the legs

attached to the table top, mechanical fasteners or attachments may be used to secure the legs to the table top. These mechanical fasteners, such as plastic or metal clips or brackets, however, are often easily bent, broken or otherwise damaged. Further, attaching the four separate attachment mechanisms to the table top by fasteners, such as screws or bolts, may undesirably weaken the table top and allow the table to expectedly fail.

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BRIEF SUMMARY OF THE INVENTION

[010] A need exists for a table that eliminates the above-described disadvantages and problems.

[011] One aspect is the table may have a relatively small size and it may be designed for use by a single person. This type of table that is intended for use by an individual is referred to as a table, but it will be appreciated that the table could be larger or smaller, and more than one person could use the table if desired. Significantly, if the table is sized and configured for personal use, it does not take up unnecessary space or provide a large amount of unused space. In addition, the table may be relatively lightweight, which may make the table easy to move, transport and store.

[012] Another aspect is the table may be used for a wide variety of different situations and uses such as supporting a television, computer, sewing machine, microwave, lamp, luggage, and the like. The table can also be used for a wide variety of other uses such as a bedside table, coffee table, night stand, desk, shop table, and the like. Further, the table can be used while performing a wide variety of tasks such as reading, writing, studying, working, etc. Thus, the table can be used in a number of different environments and it can perform numerous different tasks.

[013] A further aspect is the table may include a drawer that is connected to one end of the table top. The drawer is preferably connected to the end of the table top so that it does not interfere with the location and/or placement of the table legs. The drawer may be attached to the bottom surface of the table top and it is preferably slidable relative to the table top. This may allow the drawer to be placed in a closed position in which all or a substantial portion of the drawer is disposed underneath the

table top, or in an open position in which all or a substantial portion of the drawer extends outwardly from the table top.

[014] Yet another aspect is the height of the table may be adjustable. Advantageously, the adjustable height table allows it to be used for many different purposes, such as those discussed above. Alternatively, the table may have a fixed or non-adjustable in height.

[015] A further aspect is the table may include a table top that is support by a single pair of legs. The pair of legs are preferably pivotally connected and the legs may allow the height of the table top to be easily adjusted. Significantly, if the table top is support by a single pair of legs, that may provide additional leg room and/or storage room under the table. In addition, the single pair of legs may be lightweight and easily attached to the table top. The single pair of legs are preferably sized and configured to support the table top and one or more objects placed on the table top.

[016] A still further aspect is the table may include legs that are preferably movable between a use position and a storage position. The legs preferably extend outwardly from the table top in the use position and the legs support the table top above a surface such as the floor. In the storage position, the legs are preferably collapsed into a relatively compact area, which allows the table to be easily transported or stored. The legs, for example, may be placed adjacent and/or proximate to the bottom surface of the table top in the collapsed position.

[017] Another aspect is the table may include a table top that is constructed from a lightweight material so that the table is easily portable and can be readily lifted and moved by a single person. Desirably, the table top is constructed from blow-molded plastic, such as high density polyethylene. The blow-molded plastic table top provides

a rigid, high-strength structure that is capable of withstanding repeated use and wear. Advantageously, the blow-molded table top can be easily manufactured and formed into the desired size and shape. In addition, the blow-molded table top can form a structural component of the table to minimize the number of components and size of the table.

[018] Yet another aspect is the table may include legs that can be attached to recesses, grooves and/or openings formed in the table top. The legs, for example, may be attached to the recess, grooves or openings by a snap, interference or friction fit. This connection of the legs to the table top may also allow the legs to be selectively removed or detached from the table top. Advantageously, because the legs do not require any fasteners or other structures to be connected to the table top, no stress points or other types of weakness are formed in the table top. Thus, the strength and rigidity of the table top is not decreased by forming holes or inserting fasteners into the table top. The legs may also be pivotally or slidably attached to the table top.

[019] A further aspect is the table may include a frame and the legs may be attached to the frame. For example, the frame may include two generally parallel rails that are disposed proximate opposing edges of the table top. The frame may include two or more pairs of generally aligned openings or apertures and the legs may be selectively inserted into openings in the frame. Advantageously, this may allow the height of the table to be adjusted by inserting the legs into different pairs of generally aligned openings.

[020] Another aspect is the table may include a pair of legs that are pivotally connected and one or both of the legs may be removably attached to the table top. This may allow the legs to be easily removed for transportation and/or storage. This may also allow the height of the table to be easily adjusted.

[021] A further aspect is the table may include a pair of legs that are pivotally connected by a pin, bolt or screw into a generally X-shaped configuration. The pivotal connection advantageously allows the legs to be quickly moved between the storage and use positions. The pivotal connection also allows the height of the table to be readily adjusted. Desirably, each leg includes a lower portion that contacts a support surface such as the floor, a body portion, and an upper portion that is sized and configured to be connected to the table top. The body portion of each of the legs may include two support members, which helps prevent twisting or undesirable torque on the connection of the upper and lower portions to the elongated body portion.

[022] A further aspect is the table may include leg receiving recess to allow the height of the table to be adjusted. For example, the leg receiving recesses may be positioned into two or more generally aligned pairs of openings or receiving portions disposed on the underside of the table top. The ends of the upper portion of the legs can be selectively inserted and removed from the two or more generally aligned pairs of receiving portions to allow the height of the table to be adjusted. Desirably, the length of the upper portion of one or both of the legs is adjustable to allow the upper portion of the leg to be inserted and removed from the generally aligned pairs of leg receiving recesses. In addition, one or both of the legs can be detached from the table top to allow the table to be stored.

[023] A further aspect is the table may include a frame that includes two generally parallel side rails. Each of the side rails preferably includes at least two pairs of generally aligned openings or apertures. One or both of the legs can be readily moved from one pair of generally aligned openings to another pair of generally aligned

openings to allow the height of the table to be adjusted. Advantageously, the openings in the frame can be used in conjunction with leg receiving recesses, if desired.

[024] Advantageously, the table may be relatively simple to manufacture because it preferably consists of a table top constructed from blow-molded plastic and a pair of pivotally interconnected legs. The blow-molded table top may include upper and lower opposing walls that are spaced apart, which may increase the strength and/or rigidity of the table top. The blow-molded table top may also include one or more depressions or tack-offs to further increase the strength of the table top and/or interconnect the upper and lower walls. Significantly, the blow-molded table top may be light-weight, durable, generally weather resistant and temperature insensitive, and it does not corrode, rust or otherwise deteriorate. The blow-molded table top can also be formed in various shapes, sizes, configurations and designs.

[025] Additionally, the table may be easy to assemble, which reduces manufacturing and labor costs. Further, consumers may be able to easily assemble the table and consumers may appreciate many of the aspects of the table such as being lightweight, adjustable height, portable, sturdy, usable in a wide variety of uses, and capable of being used in a number of different environments.

[026] These and other aspects, features and advantages of the present invention will become more fully apparent from the following detailed description of preferred embodiments and appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[027] The appended drawings contain figures of preferred embodiments to further clarify the above and other aspects, advantages and features of the present invention. It will be appreciated that these drawings depict only preferred embodiments of the invention and are not intended to limit its scope. The invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[028] Figure 1 is a front perspective view of a table in accordance with an exemplary embodiment of the present invention;

[029] Figure 2 is a rear perspective view of the table shown in Figure 1;

[030] Figure 3 is a front perspective view of a portion of the table shown in Figure 1, illustrating the support legs in an extended position;

[031] Figure 4 is a front view of the support legs shown in Figure 3, illustrating the legs in an extended position in solid lines and in a collapsed position in broken lines;

[032] Figure 5 is a top view of the support legs shown in Figure 3;

[033] Figure 6 is a right side view of the support legs shown in Figure 3;

[034] Figure 7 is a front perspective view of a table in accordance with another exemplary embodiment of the present invention, illustrating the body portion of the support legs including a single support member;

[035] Figure 8 is a rear perspective view of a table in accordance with yet another exemplary embodiment of the present invention;

[036] Figure 9 is a rear perspective view of the table shown in Figure 8, illustrating the support legs in a reversed position;

[037] Figure 10 is a bottom perspective view of a portion of the table shown in Figure 10;

[038] Figure 11 is right side view of the portion of the table shown in Figure 10;

[039] Figure 12 is a left side view of the portion of the table shown in Figure 10;

[040] Figure 13 is a bottom perspective view of a portion of a table in accordance with still another exemplary embodiment of the present invention;

[041] Figure 14 is a bottom perspective view of the portion of the table shown in Figure 13, illustrating the support legs attached to the bottom surface of the table top and in an extended position;

[042] Figure 15 is a bottom perspective view of the table shown in Figure 14, illustrating the support legs attached to the bottom surface of the table top and in a collapsed position;

[043] Figure 16 is a perspective view of a table in accordance with yet another exemplary embodiment of the present invention;

[044] Figure 17 is a bottom perspective view of a portion of the table shown in Figure 16, illustrating the table top;

[045] Figure 18 is a bottom view of the portion of the table shown in Figure 16;

[046] Figure 19 is a perspective view of another portion of the table shown in Figure 16, illustrating the frame and the support assembly;

[047] Figure 20 is a top view of the frame and the support assembly shown in Figure 19;

[048] Figure 21 is a left side view of the support assembly of the table shown in Figure 16;

[049] Figure 22 is a bottom perspective view of the table shown in Figure 16, illustrating the legs in an extended position;

[050] Figure 23 is a bottom perspective view of the table shown in Figure 16, illustrating the legs in a collapsed position;

[051] Figure 24 is a perspective view of a table in accordance with still another exemplary embodiment of the present invention, illustrating a drawer in a closed position;

[052] Figure 25 is a bottom view of the table shown in Figure 24;

[053] Figure 26 is a top view of the table shown in Figure 24;

[054] Figure 27 is a front view of the table shown in Figure 24;

[055] Figure 28 is a right side view of the table shown in Figure 24;

[056] Figure 29 is a left side view of the table shown in Figure 24;

[057] Figure 30A is a partial cross-sectional view along lines 30A-30A in Figure 26, illustrating the drawer in a closed position;

[058] Figure 30B is a partial cross-sectional view along lines 30A-30A in Figure 26, illustrating the drawer in a partially closed position;

[059] Figure 30C is a partial cross-sectional view along lines 30A-30A in Figure 26, illustrating the drawer in an open position;

[060] Figure 31 is a partial cross-sectional view along lines 31-31 in Figure 25, illustrating a wheel, guide or roller assembly;

[061] Figure 32 is a bottom perspective view of a portion of the table shown in Figure 24;

[062] Figure 33 is a cross-sectional side view of a portion of a table in accordance with a further exemplary embodiment of the present invention;

[063] Figure 34 is a perspective view of a table top in accordance with yet another exemplary embodiment of the present invention, illustrating the drawer in an open position;

[064] Figure 35 is a top view of the table top shown in Figure 34;

[065] Figure 36 is a bottom view of the table top shown in Figure 34;

[066] Figure 37 is a front view of the table top shown in Figure 34;

[067] Figure 38 is a back view of the table top shown in Figure 34;

[068] Figure 39 is a left side view of the table top shown in Figure 34; and

[069] Figure 40 is a right side view of the table top shown in Figure 34.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[070] The present invention is directed towards a table and, in particular, to a table with a drawer. The principles of the present invention, however, are not limited to a table with a drawer. It will be understood that, in light of the present disclosure, the table can include one or more drawers and the drawers could be attached to any suitable portion of the table by any suitable manner or method.

[071] Additionally, to assist in the description of the table with a drawer, words such as top, bottom, front, rear, right and left are used to describe the accompanying figures. It will be appreciated, however, that the table can be located in a variety of desired positions-including various angles, sideways and even upside down. A detailed description of the table with a drawer now follows.

[072] As seen in Figure 1, an exemplary table 10 is shown. The table 10 is preferably a relatively small-sized table that is intended for use by a single person at one time. Advantageously, because the table 10 is sized and configured for personal use, it does not require a large amount of space. Therefore, the table 10 provides ample space for a single user without requiring a large area or unnecessary space. This table 10 that is sized and configured for use by a single person is referred to as a table.

[073] The table 10 includes a table top 12 and a support assembly 14 that is used to support the table top above a surface such as the floor or ground. The table top 12 includes a top surface 16, a bottom surface 18, a front side 20, a rear side 22, a right side 24 and a left side 26. The table top 12 may also include a beveled, sloped or rounded surface 28 disposed between the top surface 16 and one or more of the sides 20, 22, 24 and 26. The beveled surface 28 may increase the comfort and safety of the user. The beveled surface 28, for example, may be larger along the front surface 20 of

the table top 12, but it will be appreciated that the table 10 does not require a beveled surface.

[074] As shown in Figure 1, the table top 12 preferably has a generally rectangular configuration with rounded corners and slightly rounded or curved outer edges or sides 20, 22, 24, and 26. Desirably, the table top 12 is about thirty (30) inches in length and about twenty (20) inches in width, but one skilled in the art will appreciate that the table top can have other suitable sizes and configurations. For example, the table top 12 may be larger or smaller and the table top can have other configurations such as square, circular, oval, and the like depending, for example, upon the intended use of the table 10. In addition, the corners and edges of the table top 12 do not have to rounded or curved and, in contrast, the corners and edges could have any desirable configuration, but the rounded or curved features may increase the comfort and/or safety of the user.

[075] Advantageously, the table 10 can be used for a wide variety of different purposes and in a number of different environments. For instance, the table 10 can be used as a desk, writing table, computer table, coffee table, end table, and the like. The table 10 can also be used for other purposes such as a sewing table, bedside table, television stand, microwave stand, shop table, luggage stand and the like. In addition, the table 10 can be used for working, reading, writing and other suitable uses. Accordingly, the table 10 is capable of many different uses and it is preferably sized and configured to be used by a single person at one time.

[076] The table top 12 is preferably constructed from a lightweight material and, more preferably, the table top is constructed from plastic, such as high density polyethylene. The plastic table top 12 is desirably formed by a blow-molding process because, for example, it allows a strong, lightweight, rigid and sturdy table top to be

quickly and easily manufactured. Advantageously, the blow-molded plastic table top 12 is lighter weight than conventional table tops constructed from wood or metal, and the blow-molded plastic table top can be constructed from less plastic, which saves manufacturing costs and reduces consumer costs. In particular, the blow-molded table top 12 can be manufactured with thin plastic walls and that allows the table top to cool faster during the manufacturing process, which decreases the manufacturing time. Further, the blow-molded plastic table top 12 can be constructed with any suitable configuration, shape, size, design and/or color depending, for example, upon the intended use of the table 10. For example, the table top 12 can be constructed with a generally rectangular configuration of about eighteen by about twenty-four inches (18 x 24), a table top with a generally circular configuration with a diameter of about twenty inches (20) or a table top with a generally square configuration with twenty-four inch (24) sides may be easily formed during the blow-molding process. Of course, it will be appreciated that the blow-molded table top 12 can have any suitable size and configuration depending, for example, upon the intended use of the table 10.

[077] The table top 12 is preferably constructed from blow-molded plastic because blow-molded plastic table tops are durable, weather resistant, generally temperature insensitive, corrosion resistant, rust resistant, and generally do not deteriorate over time. One skilled in the art, however, will appreciate that the table top 12 does not have to be constructed from blow-molded plastic and other suitable materials and/or processes can be used to construct the table top depending, for example, upon the intended use of the table 10.

[078] As shown in Figure 1, the top surface 16 and the bottom surface 18 of the table top 12 are spaced apart a given distance and these two spaced apart surfaces help

create a rigid and strong table top 12. Additionally, as described in more detail below, the top and bottom surfaces 16, 18 may be interconnected by one or more depressions or other reinforcement structures and these structures may be sized and configured to further increase the strength and rigidity of the table top 12. Advantageously, these depressions and/or other reinforcement structures can be integrally formed as part of a one-piece structure during the blow-molding process.

[079] The support assembly 14 is used to support the table top 12 above a surface such as the ground or floor. As shown in Figures 1-6, an exemplary embodiment of the support assembly 14 includes a first leg 30a and a second leg 30b. The first leg 30a and the second leg 30b preferably each include a lower portion or foot 32a, 32b; a body portion 34a, 34b; and an upper portion 36a, 36b, respectively. The lower portion 32a, 32b of each leg 30a, 30b, which may also be referred to as a foot, is preferably sized and configured to contact the ground or floor. Desirably, the lower portion 32a, 32b is an elongated member that has a length slightly less than the width of the table top 12 to provide a relatively stable base, but the elongated member could be longer or shorter. As shown in the accompanying figures, the lower portions 32a, 32b are preferably hollow tubes that are lightweight and easy to manufacture, and the tubes are preferably constructed from metal but any suitable materials may be used. End caps 42 may be attached to the ends of the lower portions 32a, 32b to prevent foreign objects from entering the hollow tubes and the end caps may provide a non-skid and non-marking surface. It will be understood that neither the lower portions 32a, 32b nor the end caps 42 are required.

[080] As shown in Figures 1-6, the lower portions 32a, 32b are preferably positioned generally parallel to each other to provide a stable base for the table 10 that

is resistant to tipping. It will be appreciated, however, that the lower portions 32a, 32b could have any desirable size, configuration or design depending, for example, upon the intended use of the table 10. For example, the lower portions 32a, 32b could have a triangular, square, rectangle, generally planar or other suitable configuration, and the lower portions of the legs could have any suitable width and length depending, for example, upon the intended use of the table 10.

[081] The body portions 34a, 34b of the legs 30a, 30b preferably consist of one or more elongated members that are used to support the table top 12 above a surface such as the ground or floor. It will be appreciated that the lengths of the body portions 34a, 34b of each leg 30a, 30b are preferably the same so that the table top 12 is supported in a generally horizontal position relative to the support surface and the length of the body portions may help determine the overall height of the table 10. The body portions 34a, 34b of each leg 30a, 30b are preferably constructed from generally hollow members, such as hollow metal tubes, which are lightweight and easy to manufacture, but the body portions may have any desired sizes and/or configurations. The ends of the body portions 34a, 34b are preferably securely connected to the lower portions 32a, 32b of each leg 30a, 30b by welding or other suitable means.

[082] As shown in Figures 1-6, the body portions 34a, 34b of the legs 30a, 30b may include two separate elongated support members 40a, 40b. Alternatively, as shown in Figure 7, for example, the body portions 34a, 34b may include only a single elongated support member 40a, 40b. Advantageously, the body portions 34a, 34b constructed with two separate elongated support members 40a, 40b may help prevent twisting or torque on the connection of the body portions 34a, 34b to the lower portions 32a, 32b. Additionally, the two separate elongated support members 40a, 40b of the

body portions 34a, 34b may be curved or spaced apart. In particular, the upper and lower portions of the body portions 34a, 34b may be spaced apart to facilitate connection of the body portions to the lower portion 32a, 32b, which may create a more secure connection.

[083] As best seen in Figures 5 and 6, the upper and lower portions of the body portions 34a, 34b of the legs 30a, 30b preferably curve outwardly and away from each other, and the middle portions of the legs preferably curve towards each other. The middle portions of the legs 30a, 30b are preferably pivotally connected at a connection point by a connector such as a bolt, pin, screw or other type of suitable fastener 44. The legs 30a, 30b are preferably pivotally connected to allow the legs to pivot or scissor back and forth with respect to one another at a wide variety of angles. This pivotal connection also allows the legs 30a, 30b to be moved between an extended position, as shown in solid lines in Figure 4, and a collapsed position, which is shown in broken lines in Figure 4. Advantageously, when the legs 30a, 30b are in the collapsed position, the legs desirably fold generally flat and/or adjacent to each other to decrease the required amount of storage space.

[084] As shown in the accompanying figures, the connection point is preferably disposed closer to the table top 12 or the upper portions 36a, 36b of the legs 30a, 30b than the lower portions 32a, 32b of the legs. This may create a table with a more stable and secure base because the lower portions 32a, 32b of the legs 30a, 30b are separated by a greater distance. It will be appreciated, however, that the legs 30a, 30b may be connected at any desired point. It will also be appreciated that the legs 30a, 30b may be connected in any suitable manner, including sliding or movable connections, depending, for example, upon the intended use of the table 10.

[085] As seen in Figures 3-6, for example, the upper portions 36a, 36b of the legs 30a, 30b are attached to the upper portions of the body portions 34a, 34b, respectively. In addition, the distance separating the legs 30a, 30b attached to the upper portions 36a, 36b is preferably less than the distance separating the legs attached to the lower portions 32a, 32b of the legs. The legs 30a, 30b, however, could be attached to any suitable portions of the upper portions 36a, 36b and/or lower portions 32a, 32b, depending, for example, upon the intended use or design of the table 10.

[086] As shown in the accompanying figures, the upper portions 36a, 36b of the legs 30a, 30b preferably have generally the same shape and size, and the upper portions are desirably constructed from hollow metal tubes that have a generally circular configuration. It will be appreciated that the upper portions 36a, 36b of the legs 30a, 30b may have other suitable configurations such as oval, oblong, square, rectangular and the like. It will also be appreciated that the upper portions 36a, 36b of the legs 30a, 30b do not have to be constructed from hollow metal tubes and the upper portions may also be constructed from other suitable components and materials.

[087] The upper portions 36a, 36b of the legs 30a, 30b may be sized and configured to be received within leg receiving recesses formed within the table top 12. Advantageously, if the upper portions 36a, 36b of the legs 30a, 30b have the same size and configuration, then the upper portions may be interchangeably attached to the table top 12. For example, as seen in Figure 10, the bottom surface 18 of the table top 12 may include one or more leg receiving recesses 50 that are sized and configured to receive the upper portions 36a, 36b of the legs 30a, 30b. Preferably, the upper portions 36a, 36b are configured to be connected to selected leg receiving recesses by a snap, friction or interference fit, which allows the legs 30a, 30b to be quickly and easily

attached and detached from the table top 12, but the legs can be connected to the table top 12 by any suitable manner. Further, latches, tabs, locking members, clips fasteners or other suitable devices may be used to retain the upper portions 36a, 36b in the leg receiving recesses.

[088] The leg receiving recesses 50 preferably extend generally from the front edge to the rear edge of the table top 12 and the leg receiving recesses preferably do not extend through the outer edge or lip of the table top. The leg receiving recesses 50, however, may be formed in any desired portion of the table top and have any desired size and configuration depending, for example, upon the size and shape of the upper portions 36a, 36b of the legs 30a, 30b. The leg receiving recesses 50 preferably extend only a portion of the distance between the bottom 18 surface and the top surface 16, but the upper portion of the leg receiving recess may contact or engage the top surface of the table top.

[089] Advantageously, the legs 30a, 30b can be firmly and securely held within the leg receiving recesses 50, which allows a strong and stable table 10 to be created. One skilled in the art will understand that the support assembly 14 can be connected to the table top 12 by other suitable means such as adhesives, mechanical fasteners or other suitable devices.

[090] The leg receiving recesses may also include one or more retaining members 52. The retaining members 52 may flex or bend slightly to allow the upper portions 36a, 36b of the legs 30a, 30b to be inserted and removed from the leg receiving recesses. The retaining members 52 preferably resiliently return to their original positions to help secure the upper portions 36a, 36b of the legs 30a, 30b within the leg receiving recesses 50. It will be appreciated, however, that the leg receiving recesses 50

may not require the use of the retaining members 52 to hold the upper portions 36a, 36b of the legs 30a, 30b within the leg receiving recesses.

[091] In greater detail, the retaining members 52 preferably include a lip that extends over a portion of the leg receiving recess 50 and the lip deforms or deflects to allow the upper portions 36a, 36b of the legs 30a, 30b to be inserted or removed from the leg receiving recess. The lip preferably includes a generally hollow interior that is formed during the blow-molding process. In addition, the lip is preferably formed during the blow-molding process as part of an integral, one-piece structure. One skilled in the art will appreciate that the retaining members 52 and lip could have any suitable size and structure, and the retaining members 52 do not require a lip.

[092] As shown in the accompanying figures, the table top 12 preferably includes a plurality of leg receiving recesses 50 and the legs 30a, 30b can be connected to any suitable leg receiving recesses. In particular, the legs 30a, 30b are preferably sized and configured to be quickly and easily connected and/or disconnected to any selected leg receiving recesses 50. Additionally, as discussed above, the legs 30a, 30b are preferably pivotally connected to allow the legs to quickly and easily pivot or move into different arrangements or configurations.

[093] The pivotal connection of the legs 30a, 30b and the plurality of leg receiving recesses 50 allows the height of the table 10 to be easily adjusted. In particular, the user can select which leg receiving recesses 50 to receive the legs 30a, 30b and this allows the height of the table 10 to be determined. For example, if the legs 30a, 30b are attached to two leg receiving recesses 50 that are close together, the table 10 will have a given height. However, if the legs 30a, 30b are attached to two leg receiving recesses 50 that are farther apart, then the table 10 will have a lower height. One skilled in the

art will appreciate that the height of the table 10 may depend upon the number and location of the leg receiving recesses 50. One skilled in the art will also appreciate that the table 10 does not have to be adjustable in height.

[094] In addition, one or both of the legs 30a, 30b may be selectively connected and disconnected from the leg receiving recesses 50. For example, if both legs 30a, 30b can be selectively connected and disconnected from the leg receiving recesses 50, then either or both legs may be connected to other receiving recesses 50 to adjust the height of the table 10. On the other hand, if only one of the legs 30a, 30b can be selectively connected and disconnected from the leg receiving recesses 50, then that leg may be connected to other receiving recesses 50 to adjust the height of the table 10.

[095] Further, because the legs 30a, 30b may be selectively connected and disconnected from the table top 12, this allows the legs to be quickly and easily moved between a storage position and a collapsed position. For example, if both legs 30a, 30b are completely disengaged from table top 12, then the legs can be folded into the collapsed position for storage independently from the table top. Alternatively, if one or both of the legs 30a, 30b may be disconnected from the table top 12, then the legs can be moved into a collapsed position that is near or adjacent to the table top. Thus, a variety of different configurations are contemplated when table 10 is collapsed, including: (1) the support assembly 14 is completely disengaged from table top 12; (2) at least a portion of support assembly is connected to the table top while another portion of the support assembly is disconnected from the table top; and (3) at least a portion of support assembly is permanently coupled to table top.

[096] As seen in Figures 8-11, a channel 54 may be formed in the bottom surface 18 of the table top 12 and the channel may be sized and configured to receive at least a

portion of the legs 30a, 30b in the collapsed position. The channel 54, for example, may interconnects two or more of the leg receiving recesses 50 and the channel preferably extends through a side of the table top 12 such as the right side 24. The channel 54 preferably has a shape similar to at least a portion of the body portions 34a, 34b of the legs 30a, 30b and the channel is preferably sized and configured to receive at least a portion of one or the body portions of the legs in the collapsed position, as shown in Figure 18. This allows the legs 30a, 30b to be disposed generally adjacent to the table top 12 when the legs are in the collapsed position, which reduces the required amount of storage space and this may also allow the tables 10 to be easily stacked.

[097] The legs 30a, 30b may be retained in the collapsed position in the channel 54 by one or more tabs 56. The tabs 56 are preferably located near an edge of the table top 12 and the tabs are preferably sized and configured to extend over a portion of the channel 54. The one or more tabs 56 may deform or deflect to allow the legs 30a, 30b to be received or removed from the channel 54. The tabs 56 preferably include a generally hollow interior portion and the tabs are desirably formed during the blow-molding process as part of an integral, one-piece structure. One skilled in the art will understand that the tabs 56 and channel may have other suitable arrangements and configurations, and that one or more clips, fasteners and other types of devices may be used to secure the legs 30a, 30b in the collapsed position.

[098] The support assembly 14 is preferably configured to maximize the legroom for the user when table 10 is in an upright position. For example, as shown in Figures 1-3, the body portions 34a, 34b of legs 30a, 30b are not centered relative to the lower portions 32a, 32b or upper portions 36a, 36b. Instead, the body portions 34a, 34b of the legs 30a, 30b are disposed towards an end of the lower portions 32a, 32b and upper

portions 36a, 36. Thus, when the table top 12 is coupled to the support assembly 14, as shown in Figure 1 for example, the body portions 34a, 34b are located proximate the rear side 22 of the table top 12. Therefore, when the user is seated at front side 20 of table 10, the body portions 34a, 34b of the legs 30a, 30b are positioned farther away from the user so as to avoid impeding the user's space.

[099] In addition, because the body portions 34a, 34b of the legs 30a, 30b are positioned near the rear side 22 of table top 12, the user can slide the table 10 closer to their body. This allows the user to position the top surface 16 of the table top 12 in a desired position while still maintaining adequate legroom underneath the table 10. Thus, it can be seen that the table 10 facilitates the ergonomic comfort of the user by reducing the need of the user to lean forward over the table in order to perform a particular task, such as reading or crafting. The offset body portions 34a, 34b of the legs 30a, 30b also allow the user to slide a chair under the table 10 such that the support assembly 14 does not generally interfere with the chair. It will be appreciated, however, that the body portions 34a, 34b may be located in any suitable relation to the lower portions 32a, 32b and/or upper portions 36a, 36b of the legs 30a, 30b.

[0100] As seen in Figure 10, for example, a plurality of depressions 60 may be formed in the bottom surface 18 of the table top 12. The depressions 60 are preferably sized and configured to provide additional structural support and integrity to table top 12. The depressions 60 may cover a substantial portion of the bottom surface 18 of the table top 12 or the depressions may cover only a portion of bottom surface of table top. The depressions 60 may also be located in the leg receiving recesses 50 and/or channel 54, if desired. Alternatively, the table top 12 can be constructed without any depressions 60. In addition, while the depressions 60 are preferably located in the

bottom surface 18, it will be appreciated that depressions may also be formed in any desired portion of the table top 12.

[0101] As shown in Figure 10, the depressions 60 may be formed in an array such as a staggered, geometric, random or other suitable pattern. Additionally, the depressions 60 may extend from one surface to an opposing surface such that an end of the depression contacts or engages the opposing surface. The depressions 60 may also extend only a portion of the distance between the opposing surfaces such that there is a gap or opening between the end of the depression and the opposing surface. For example, the depressions 60 may extend from the bottom surface 18 to the top surface 16, and the end of the depression may contact or engage the inner surface of the top surface or the end of the depression may extend only a portion of the distance between the bottom and top surfaces.

[0102] The depressions 60 advantageously increase the strength of the table 12. While it was previously believed that stronger structures were provided by making the walls thicker and/or adding structures such as ribbing, the depressions 60 provide the surprising and unexpected result that an increased number of depressions may provide a stronger structure and/or thinner walls may be used to construct the structure. Surprisingly, the depressions 60 increase the structural integrity of the structure despite forming disruptions in the continuity of bottom surface 18, and less plastic can be used to make the structure even though the plurality of depressions 60 are formed in the structure. The costs of manufacturing and transportation may be decreased because thinner plastic walls may be used to construct the table top 12, which may create a lighter weight table 10.

[0103] Additionally, when blow-molded structures are formed, a certain amount of time must elapse before the structure can be removed from the mold. Blow-molded structures with thicker walls require a longer cooling time than structures with thinner walls. The depressions 60, however, allow table tops 12 with thinner plastic walls to be constructed and that reduces the cooling time before the structure can be removed from the mold. Significantly, a reduced cycle time increases the efficiency of manufacturing process. In addition, because less plastic is required, the cost of the table 10 may be reduced. Additional information and other preferred embodiments of suitable depressions and blow-molded plastic structures is disclosed in Assignee's co-pending U.S. patent application serial no. 10/490,000, entitled High-Strength, Lightweight Blow-Molded Plastic Structures, filed on April 8, 2003, which is hereby incorporated by reference in its entirety.

[0104] Advantageously, the leg receiving recesses 50, retaining members 52, channels 54, extending tabs 56 and/or depressions 60 may be formed integrally with table top 12 during the blow-molding process as part of a one-piece structure. Advantageously, this allows a strong, lightweight structure to be created. It will be appreciated, however, that these structures do not have to be formed as part of a unitary structure and, in contrast, one or more of these structures can be formed after the blow-molding process.

[0105] The table 10 can also have other suitable configurations such as shown in Figures 13-15. In particular, the table 10 shown in Figures 13-15 includes a table top 12 with a plurality of receiving recesses 50 formed in the bottom surface 18 and this allows the support assembly 14 to be connected to the table top. This allows, as seen in Figure 14 for example, the first leg 30a to be connected to one of the receiving recesses 50

disposed near the right side of the table top 12 and the second leg 30b to be connected to the receiving recess disposed near the left side of the table top. Advantageously, the first leg 30a can be selectively connected to any suitable receiving recess 50 disposed near the right side of the table top 12 in order to allow the height of the table 10 to be adjusted. For example, if the first leg 30a is connected to the receiving recess 50 disposed proximate the center of the table top 12, then the table 10 will have a first height such as twenty-eight inches. On the other hand, if the first leg 30a is connected to the receiving recess 50 disposed proximate the right side 24, then the table 10 will have a second height such as twenty-one inches. Of course, the first leg 30a could also be connected to one of the other receiving recesses 50 to create a table 10 with a height such as twenty-four or twenty-six inches. It will be appreciated that the table 10 could be sized and configured to have any suitable height and the table may include any desired number of receiving recesses 50 to allow the height of the table to be adjusted.

[0106] The table top 12 shown in Figures 13-15 includes an outer edge 70 and a recessed center section 72. The recessed center section 72 is preferably located at least partially between the leg receiving recesses 50 disposed on the right side 24 of the table top 12 and the left side 26 of the table top. The recessed center section 72 may include one or more depressions 60 and the recessed center section preferably extends towards the top surface 16 of the table top 12. The table top 12 may also include one or more recessed outer sections 74 disposed towards the outer edge 70 of the table top. It will be appreciated that the table top 12 does not require either the recessed center section 72 or the recessed outer sections 74, and the recessed center section and recessed outer sections 74 may have other desired locations and configurations.

[0107] The recessed sections 72, 74 may also include at least a portion of the leg receiving recesses 50 and/or channel 54. For example, as best seen in Figures 16 and 17, at least a portion of the channel 54 may be formed in the recessed center section 72. The channel 54 may be flush with the recessed center section 72, if desired. In addition, the table top 12 may include one or more generally planar portions 76 that allow instructions, warnings, safety labels, manufacturer information, operating instructions and other information to be attached to the table top. The table top 12 may also include one or more support grooves 78 or other desired types of reinforcement structures. Desirably, the support grooves 78 may be sized and configured to increase the strength and rigidity of the table top 12.

[0108] In order to use the table 10 shown in Figures 13-15, one of the legs 30a, 30b of the support assembly 14 is inserted into one of the desired leg receiving recesses 50 and the other leg is inserted into another of the desired leg receiving recesses. This allows a table 10 with the desired height to be created. In order to adjust the height of the table 10, one or both of the legs 30a, 30b may be removed from their respective leg receiving recesses 50 and inserted into another desired leg receiving recess. In order to collapse the table 10, the first leg 30a is preferably removed from its leg receiving recess 50 and the legs 30a, 30b are positioned within the channel 54 as shown in Figure 15. Advantageously, the extending tabs 56 may help hold the legs 30a, 30b in the collapsed position. When it is desired to use the table 10, the legs 30a, 30b are removed from the channel 54 and the first leg is inserted into the desired leg receiving recess 50. It will be appreciated that the entire support assembly 14 can be removed if desired and one or both of the legs may be permanently attached to the table top 12.

[0109] Although the leg receiving recesses 50 are preferably located generally parallel to the right 24 and left sides 26 of the table top 12, the leg receiving recesses could also be disposed at an angle or generally parallel to the front 20 and rear sides 22 of the table top. That is, for example, the leg receiving recesses 50 may be disposed proximate the front side 20 and rear side 22 of the table top 12. Advantageously, this may provide additional uses for the table 10.

[0110] From the foregoing description, it will be appreciated that the height of the table 10 may be adjusted. For example, the table 10 may be configured to have a maximum height, an intermediate height, and a minimum height. Thus, the table 10 may be configured to have a height that enables a user to stand and utilize the table, a height that is generally equal to the height of a counter top, and/or a height that enables the user to be seated at the table. Additionally, the height of the table 10 may be adjusted according to the desired use of the table. For example, the height of the table may be adjusted to allow the table to be used by children, or the table may have a height which allows it to be used as a television tray or table. Significantly, the various heights of table 10 can be predetermined and designed for any suitable purpose. This provides great flexibility and a wide variety of uses for table 10. Other information and suitable embodiments of the table 10 are disclosed in Assignee's co-pending U.S. patent application serial no. 10/340,018, entitled Personal Table, filed on January 9, 2003, which is incorporated by reference in its entirety.

[0111] As shown in Figure 16, another exemplary embodiment of the table 110 includes a table top 112 and a support assembly 114 that is used to support the table top above a surface such as the floor or ground. As discussed above, the table top 112 may include a top surface 116, a bottom surface 118, a front side 120, a rear side 122, a right

side 124 and a left side 126. The table top 112 may also include a recessed section 130 which may cover substantially the entire bottom surface 18 of the table top 12, or the recessed section may cover only a portion of the bottom of the table top. One skilled in the art will appreciate that the table top 112 does not require the recessed section 130. The table top 112 may include one or more generally planar portions 132 that allow instructions, warnings, safety labels, manufacturer information, operating instructions and other information to be attached to the table top. In addition, the bottom 118 of the table top 112 may include a lip 134. The lip 134 is preferably disposed about the outer edges or perimeter of the table top 112 and the lip is preferably integrally formed with the table top as part of a one-piece structure. For example, the lip 134 could include a hollow interior portion that is formed during the manufacturing process and the hollow interior portion may be in direct communication with a hollow interior portion of the table top 112. The lip 134, however, could also be a separate structure that is attached to the table top 112 and the lip could be disposed inwardly from the outer edges or perimeter of the table top. It will be appreciated that the lip 134 could have other suitable arrangements and configurations, and the table 110 does not require the lip.

[0112] The support assembly 114 is used to support the table top 112 above a surface such as the ground or floor. As shown in Figures 16 and 19-23, an exemplary embodiment of the support assembly 114 includes a first leg 130a and a second leg 130b. The first leg 130a and the second leg 130b preferably each include a lower portion 132a, 132b, a body portion 134a, 134b, and an upper portion 136a, 136b, respectively. The support assembly 114 preferably has generally the same configuration and arrangement as the support assembly 14 discussed above. The support assembly 114, however, could have other suitable configurations and

arrangements depending, for example, upon the configuration of the table top 112 and/or the intended use of the table 110.

[0113] The upper portions 136a, 136b of the legs 130a, 130b are preferably sized and configured to be received within leg receiving recesses 150. The leg receiving recesses 150 may include one or more openings 152 formed within the table top 112. The openings 152 are preferably formed in an inner surface of the lip 134 and, in particular, the openings are preferably disposed along inner surfaces of the lip on both the front side 120 and rear side 122 of the table top 112. The openings 152 are also preferably disposed in generally aligned pairs along the opposing inner surfaces of the lip 134. The openings 152 may be integrally formed while the table top 112 is being constructed, such as during the blow-molding process, or the openings may be formed after the table top is constructed, such as by drilling, boring or punching. The openings 152 may also comprise apertures formed in the lip 134 or the openings may comprise recesses, alcoves, indentations, depressions and the like formed in the lip or other suitable portions of the table top 112. As discussed in greater detail below, the openings 152 preferably have generally the same size and configuration, which allows the upper portions 136a, 136b of the legs 130a, 130b to be interchangeably attached to the table top 112.

[0114] The table 110 may also include a frame 154 with two side rails 160a, 160b that preferably have a generally L-shaped configuration and each of the rails preferably extend at least a majority of the length of the table top 112, but the side rails could have any suitable length. The side rails 160a, 160b are preferably generally parallel disposed and located proximate opposing edges of the table top 112, and the side rails are preferably connected to the inner surfaces of the lip 134. In particular, a first side rail

160a is preferably connected to the inner surface of the lip 134 that is generally disposed near the front side 120 of the table top 112 and the second side rail 160b is preferably connected to the inner surface of the lip near the rear side 122 of the table top 112. The side rails 160a, 160b may be connected to the inner surfaces of the lip 134 by one or more fasteners such as screws or bolts. It will be appreciated that the side rails 160a, 160b may also be connected to the lip 134 by any suitable means such as adhesives, friction fit, interference fit, snap fit and the like. It will also be appreciated that the side rails 160a, 160b may be integrally formed as part of the table top 112 and that the side rails may be connected to other suitable portions of the table top. The side rails 160a, 160b are preferably constructed from a relatively sturdy material, such as metal, but other suitable materials, such as plastic or composite materials, may also be used to construct the frame 154. The table 110, however, could be constructed with or without the frame 154.

[0115] As best seen in Figures 17, 19, 22 and 23, the side rails 160a, 160b of the frame preferably includes a plurality of openings 156 that are disposed along the inner surfaces of the side rails. The openings 156 are preferably disposed in generally aligned pairs in the opposing side rails 160a, 160b. The openings 156 in the frame 154 are preferably aligned with the openings 152 in the table top 112 and the openings in the frame are preferably sized and configured to receive the ends of the upper portions 136a, 136b of the legs 130a, 130b.

[0116] Desirably, the leg receiving recesses 150 include both the openings 152 in the table top 112 and the openings 156 in the frame 154. In particular, the openings 152 in the table top 112 and the openings 156 in the frame 154 are preferably aligned to allow the upper portions 136a, 136b of the legs 130a, 130b to be inserted and removed

from the leg receiving recesses 150, as desired. It will be appreciated, however, that the leg receiving recesses 150 may also comprise either the openings 156 in the frame 154 or the openings 152 in the table top 112. Whether the upper portions 136a, 136b of the legs 130a, 130b are inserted into the openings 156 in the frame 154 and/or the openings 152 in the table top 112, the legs are preferably securely connected to the table top 112 to create a stable and sturdy table 110.

[0117] The leg receiving recesses 150, which may include the openings 152 in the table top 112 and the openings 156 in the frame 154, are preferably disposed into at least two pairs of generally aligned openings. In particular, as best seen in Figure 17, an exemplary embodiment of the table 110 includes four pairs of generally aligned leg receiving recesses 150 disposed near one end of the table top 112. The table 110 may also include one or more leg receiving recesses 150 disposed near the other end of the table top 112. As discussed in greater detail below, one of the legs 130a, 130b is preferably selectively attached to leg receiving recesses 150 disposed near one end of the table top 112 and the other leg is preferably securely attached to leg receiving recesses disposed near the other end of the table top. It will be understood, however, that either or both of the legs 130a, 130b may be securely or selectively attached to the leg receiving recesses 150.

[0118] Additionally, the leg receiving recesses 150 can be formed with or without the frame 154. Thus, while the table 110 is preferably constructed with the frame 154, the frame is not required. Additionally, while the frame 154 may be sized and configured to increase the strength and rigidity of the table top 112, the frame may simply be used to help align the upper portions 136a, 136b of the legs 130a, 130b with

the leg receiving recesses. The frame 154 may also be provided for aesthetic or cosmetic reasons.

[0119] The bottom 118 of the table top 112 may include one or more guide members 162 that are preferably sized and configured to help guide the upper portions 136a, 136b of the legs 130a, 130b into the leg receiving recesses 150. The guide members 162 may flex or bend slightly to allow the upper portions 136a, 136b of the legs 130a, 130b to be inserted and removed from the leg receiving recesses. The guide members 162 may also extend all or a portion of the distance between opposing leg receiving recesses 150 and the guide members may be divided into one or more parts, if desired. For example, as shown in Figures 17 and 18, the guide members 162 may be divided into three discrete sections and four guide members may be used to help align and position the upper portions 136a, 136b of the legs 130a, 130b within the four leg receiving recesses 150 disposed towards one end of the table top 112. It will be appreciated that any suitable number and arrangement of guide members 162 may be utilized and the leg receiving recesses 150 do not require the use of the guide members to guide the upper portions 136a, 136b of the legs 130a, 130b into the leg receiving recesses.

[0120] The guide members 162 preferably include a hollow interior portion that is formed during the manufacturing process. In addition, the guide members 162 are preferably formed during the manufacturing process as part of an integral, one-piece table top 112. The guide members 162, however, could comprise separate components that are attached to the table top 112. Moreover, the guide members 162 do not have to be formed during the manufacturing process and the guide members can be formed by any suitable means, methods or processes.

[0121] The legs 130a, 130b are desirably sized and configured to be connected to any of the desired plurality of leg receiving recesses 150. As discussed above, one or both of the legs 130a, 130b may be sized and configured to be quickly and easily connected and/or disconnected to any desired leg receiving recesses 150. This allows the height of the table 110 to be adjusted. This also allows the legs 130a, 130b to be moved between an extended position, as shown in Figure 22, and a collapsed position, as shown in Figure 23.

[0122] For example, one or both of the upper portions 136a, 136b of the legs 130a, 130b may be adjustable in length to allow the legs to be selectively connected to the leg receiving recesses 150. That is, the length of the upper portion 136a, 136b of either or both of the legs 130a, 130b may be adjustable to allow the legs to be selectively inserted and removed from the leg receiving recesses 150. Thus, the length of the upper portion 136a, 136b of the legs 130a, 130b may be moved between a first or reduced length position in which the upper portions of the legs may be readily inserted or removed from a desired pair of leg receiving recesses 150 and a second or extended length position in which the legs are disposed within a desired pair of leg receiving recesses. Advantageously, when the upper portion 136a, 136b of the legs 130a, 130b are disposed within the leg receiving recesses 150, the legs are preferably securely attached to the table top 112.

[0123] In greater detail, as best seen in Figures 19-22, the upper portion 136b of the leg 130b may include an opening 164 and a length adjusting member 166 may be disposed within the opening. The length adjusting member 166 may have an elongated body 168 that is disposed within the opening 164. The length adjusting member 166 desirably allows the length of the upper portion 136b of the leg 130b to move between

the first or reduced length position and the second or extended length position. The length adjusting member 166 is preferably biased to maintain the upper portion 136b of the leg 130b in the second or extended position. A spring or other resilient member, for example, may be used to bias the upper portion 136b of the leg 130b in the second position. It will be appreciated that other means may be used to bias the upper portion 136b of the leg 130b into the second position.

[0124] A trigger mechanism 170 may be used to assist in adjusting the length of the upper portion 136b of the leg 130b. For example, a user may grasp the trigger 170 and apply a force on the trigger that overcomes the biasing force of the length adjusting member 166 to allow the length of the upper portion 136b of the leg 130b to be adjusted. In particular, one end of the length adjusting member 166 may be fastened to one end of the upper portion 136b of the leg 130b and the other end of the length adjusting member may be freely disposed within the other end of the upper portion of the leg. When a user applies a force to the trigger, the ends of the upper portions 136b of the leg 130b may be pulled together, which reduces the length of the upper portion, and allows it to be selectively positioned within a desired pair of leg receiving recesses 150. It will be appreciated that the length of the upper portions of the legs may be adjusted by any suitable method or manner. Advantageously, when the upper portions 136a, 136b of the legs 130a, 130b are inserted into the leg receiving recesses 150 and the upper portions are in the extended length position, the legs are securely connected to the table top 112.

[0125] As shown in Figures 19-22, only the second leg 130b is selectively connected to the leg receiving recesses 150 and it is adjustable in length. The first leg 130a is preferably securely connected to the leg receiving recesses 150 and it is not

adjustable in length. Thus, the first leg 130a is preferably connected to one of the leg receiving recesses 150 during the manufacturing process and it is generally not removable from that leg receiving recess. It will be appreciated, however, that the first leg 130a may also be selectively connected to the leg receiving recesses 150, if desired.

[0126] An opening 180 may be formed in the bottom 118 of the table top 112 to receive at least a portion of the legs 130a, 130b in the collapsed position. As seen in Figures 16-17 and 22, the opening 180 is preferably disposed in the lip 134 and the opening is preferably sized and configured to allow at least a portion of the legs 130a, 130b to extend through the opening when the legs are in the collapsed position. This allows the legs 130a, 130b to be disposed generally adjacent to the bottom surface 118 of the table top 112 when the legs are in the collapsed position, which may reduce the required amount of storage space for a table and may facilitate stacking of the tables.

[0127] The legs 130a, 130b may be retained in the collapsed position in the opening 180 by one or more tabs that are located near an edge of the table top 112. The tabs may secure the legs 130a, 130b in the collapsed position by a friction, snap or interference fit. For example, the tabs may extend over a portion of the opening 180 and the tabs may deform or deflect to allow the legs 130a, 130b to be received or removed from the opening. The tabs may include a generally hollow interior portion and the tabs may be formed during the manufacturing process as part of an integral, one-piece structure. One skilled in the art will understand that clips, fasteners and other types of devices may be used to secure the legs 130a, 130b in the collapsed position. For example, clips 182 may be used to secure the legs 130a, 103b in the collapsed position. The clips 182 may be connected to the lower surface 118 of the table top 112 and the may secure the legs 130a, 130b in the collapsed position by a friction, snap or

interference fit. For example, the clips 182 may be sized and configured to move, deform or deflect to allow a portion of the legs 130a, 130b to be received within leg receiving recesses. The clips 182 may also be sized and configured to move, deform or deflect to allow the legs 130a, 130b to be moved from the collapsed position to the extended position. While the clips 182 are preferably separate structures that are connected to the table top 112, the clips may be formed during the manufacturing process as part of an integral, one-piece structure. It will be appreciated, however, that the legs 130a, 130b do not have to be secured in the collapsed position.

[0128] As seen in Figures 16-17 and 22, a center portion 184 may be disposed within the opening 180 and the center portion may be sized and configured to be inserted within an opening in a portion of the legs 130a, 130b when the legs are in the collapsed position. If desired, the center portion 184 may be sized and configured to help secure the legs in the collapsed position. The center portion 184, however, may also be for aesthetic or design reasons. It will be appreciated that the center portion 184 can have other suitable shapes and sizes, and that the center portion is not required.

[0129] Advantageously, the leg receiving recesses 150, openings 154, guide members 162, opening 180 and/or center portion 184 may be formed integrally with table top 112 during the manufacturing process as part of a unitary, one-piece structure. For example, one or more of these features may be formed during a blow-molding process. Significantly, this allows a strong, lightweight table top 112 to be created. It will be appreciated, however, that these features do not have to be formed as part of a unitary structure and these features can be formed separately or after the manufacturing process.

[0130] As best seen in Figure 22, the first leg 130a is preferably securely connected to any suitable leg receiving recess 150 disposed near the one side of the table top 112 and the second leg 130b is preferably selectively connected to any suitable leg receiving recesses disposed near the other side of the table top. Because the second leg 130b is preferably selectively connected to any suitable receiving recess 150, the height of the table 110 to be adjusted. For example, if the leg 130b is connected to receiving recesses 150 disposed proximate the center of the table top 112, then the table 110 will have a first height such as twenty-eight inches. On the other hand, if the leg 130b is connected to receiving recesses 150 disposed proximate the other side of the table top 112, then the table 110 will have a second height such as twenty-one inches. Of course, the leg 130b could also be connected to other leg receiving recesses 150 to create a table 110 with a different height such as twenty-four or twenty-six inches. It will be appreciated that the table 110 could be sized and configured to have any suitable height and the table may include any desired number of receiving recesses 150 to allow the height of the table to be adjusted. While the first leg 130a is preferably securely connected to the table top 112 and the second leg 130b is preferably selectively connected to the table top 112, it will be appreciated that the first leg may be selectively connected to the table top and the second leg may be securely connected to the table top. It will also be appreciated that the first and second legs 130a, 130b may be either selectively or permanently secured to the table top 112 if desired.

[0131] In order to use the table 110 shown in Figures 16-23, the first leg 130a is securely connected to the table top 112 and the second leg 130b is selectively connected to the table top. In particular, the second leg 130b is selectively connected to any of the desired leg receiving recesses 150 according to the desired height of the table. In order

to adjust the height of the table 110, the second leg 130b may be removed from its leg receiving recesses 150 and inserted into another desired leg receiving recesses. In order to collapse the table 110, the second leg 130b is removed from its leg receiving recesses 150 and the legs are positioned in the collapsed position shown in Figure 23. Advantageously, the legs 130a, 130b may extend through the opening 180 and the clips 182 may retain the legs in the collapsed position. When it is desired to use the table 110, the legs 130a, 130b are removed from the opening 180 and the second leg 130b is inserted into the desired leg receiving recesses 150. Of course, the entire support assembly 114 can be removed if both legs 130a, 130b are both selectively attached to the table top 112. Additional information other suitable embodiments of the table are disclosed in Assignee's co-pending U.S. patent application serial no. 10/612,892, entitled Personal Table, filed on October 24, 2003, which is hereby incorporated by reference in its entirety.

[0132] As shown in Figures 24-32, the table 210 may also include a drawer 212. The drawer 212 is preferably connected to an end of the table top 214 so that it does not interfere with the positioning and/or movement of the legs 216. In particular, the drawer 212 is preferably positioned so that it does not interfere with adjusting the height of the table 210 or moving the legs 216 between collapsed and extended positions. Of course, the drawer 212 could also be used in connection with legs 216 that are not adjustable or moveable, if desired.

[0133] The table 210 with the drawer 212 is preferably similar to and may contain many of the same components and features of the tables 10 and 110 discussed above. Thus, where appropriate, the tables 10, 110 and 210 may have the same or similar components and features, and the same reference numerals may be used in connection

with these same or similar components and features. In addition, the table 210 may have generally the same size, configuration, arrangement, characteristics and aspects as the tables 10 and 110. The table 210, however, may also have other sizes, configurations, arrangements, characteristics and aspects depending, for example, upon the intended use of the table.

[0134] As shown in the accompanying figures, the drawer 212 is preferably disposed on one side of the table, such as the right side 218 or the left side 220, but the drawer could also be located on the front 222 or rear 224 portions of the table top 214. Desirably, the drawer 212 is positioned so that it does not interfere with the placement or movement of the legs 216. The width of the drawer 212 is preferably less than the width of the table top 214, but it will be appreciated that the drawer could have any suitable size and configuration. In addition, the drawer 212 is preferably at least partially disposed within the outer lip 226 of the table top 214. In particular, the drawer 212 is preferably at least partially disposed within a cutout or cavity 228 formed in the lip 226. The drawer 212 could also be disposed within an opening formed in the lip 226 so that at least a portion of the drawer is enclosed by the lower portion of the lip.

[0135] As shown in the accompanying figures, the drawer 212 has a generally rectangular configuration with a front surface 230, a rear surface 232, a right side 234, a left side 236 and a bottom 238 that generally defines an interior portion 240 of the drawer. The interior portion 240 of the drawer 212 may include one or more recesses, depressions, walls, partitions, dividers or other structures that divide the interior portion into various compartments and sections. These compartments may be sized and configured to hold various items such as paper, pens, etc. The drawer 212 could also be sized and configured to hold cups, drinks, notebooks, books, computers, etc. It will be

readily appreciated that the drawer 212 could be sized and configured to hold or store a wide variety of items depending, for example, upon the intended use of the drawer.

[0136] The drawer 212 is preferably constructed from plastic because it is relatively lightweight and strong. The plastic drawer 212 could be formed from any suitable process such as injection molding, compression molding, blow-molding, and the like. Advantageously, the plastic drawer 212 may be quickly and easily formed into the desired shaped. It will be appreciated, however, that the drawer 212 could be constructed from other materials with suitable characteristics, such as metal or composites, and the drawer could have other shapes and sizes depending, for example, upon the intended use of the drawer or table 210. In addition, the drawer 212 could include one or more reinforcement structures that are sized and configured to increase the strength and/or rigidity of the drawer.

[0137] The front surface 230 of the drawer 212 preferably includes a handle 242 to allow the drawer 212 to be easily opened and closed. For example, as shown in Figure 24, the handle 242 may project outwardly from the front surface 230 of the drawer 212. In addition, the front surface 230 of the drawer may include one or more recessed portions 244 to allow the handle 242 to be grasped by the user. In addition, the front surface 230 of the drawer 212 may include a lower edge 246 that extends along the bottom of the front surface. The user may grasp the lower edge 246 and/or the handle 242 to open and close the drawer 212. The drawer 212 could also include other types of handles such as knobs, grips, levers, and the like to facilitate opening and closing of the drawer. The drawer 212, however, does not require a handle 242 and, for example, the drawer could simply be opened and closed by grasping the lower edge 246 or pushing on the front surface 230 of the drawer.

[0138] The drawer 212 is preferably slidably attached to the lower portion of the table top 214 and movable between open and closed positions. When the drawer 212 is in the closed position, the drawer is preferably substantially or completely disposed underneath the upper surface of the table top. On the other hand, when the drawer 212 is in the open position, at least a portion of the drawer extends outwardly from underneath the upper surface table top to allow items to be inserted or removed from the drawer. While the drawer 212 is preferably slidably attached to the table top 214, it will be appreciated that the drawer could be attached to the table 210 in any suitable manner and to any desired portion of the table.

[0139] As best seen in Figures 25, 31 and 32, the drawer is preferably slidably attached to the table top 214 by one or more rollers or guides 250. In particular, the right and left sides 234, 236 of the drawer preferably include right and left outwardly extending flanges 252, 254 that are sized and configured to contact the rollers or guides 250. The flanges 252, 254 preferably contact the upper portion of the rollers or guides 250 and the flanges may include downwardly extending portions 256, 258 to help maintain the flanges in contact with the rollers or guides. The rollers or guides 250 are preferably attached to the frame 154 and, in particular, to the side rails 160a, 160b of the frame. The rollers or guides 250 may be pivotally connected to the frame 154 to facilitate opening and closing of the drawer 212. The rollers or guides 250 may also be fastened to the frame in a fixed position so that the flanges 252, 254 slide on the rollers or guides. It will be appreciated that the rollers or guides 250 may also be connected to other suitable portions of the table 210, such as an inner surface of the lip 226 or other portions of the table top 214. In particular, if the table 210 does not include a frame,

then the rollers or guides 250 may be directly connected to the inner surface of the lip or other suitable portions of the table top 214.

[0140] The flanges 252, 254 and rollers or guides 250 may also form a guide and guide pin arrangement. For example, the flanges 252, 254 with the downwardly extending portions 256, 258 may form a guide or track. At least a portion of the rollers or guides 250 may form a guide pin that is inserted into the guide or track. Advantageously, the guide and guide pin arrangement may help control the movement of the drawer 212 by only allowing the drawer to move in the desired directions.

[0141] The flanges 252, 254 and rollers or guides 250 are preferably sized and configured to allow the drawer 212 to be quickly and easily moved between the open and closed positions. In particular, the flanges 252, 254 and the rollers or guides 250 are preferably specifically designed to contact or engage each other. For example, the rollers or guides 250 may be pivotally attached to the frame 150 or table top 114 to allow the rollers to rotate as the drawer 212 is opened or closed. Additionally, the flanges 252, 254 and rollers or guides 250 may include various coatings or materials that decrease friction to allow the drawer to be opened and closed more easily. Further, the flanges 252, 254 and rollers or guides 250 are preferably constructed from durable materials such as metal or plastic to create long-lasting surfaces that allow the drawer to be repeatedly opened and closed.

[0142] As seen in Figure 33, the guides or rollers 250 are not required to connect the drawer 212 to the table 210. For example, the right and left sides 234, 236 of the drawer may include right and left projections 260, 262 that are sized and configured to fit over the upper portion of the rails 160a, 160b of the frame 152. The right and left projections 260, 262 preferably each include an overhang or extension 264, 266 that

extends around the upper portion of the rails 160a, 160b of the frame 154 to slidably connect the drawer 212 to the frame 154. The projections 260, 262 and extensions 264, 266 preferably have a generally C-shaped configuration, but the projections and extensions could have other suitable configurations depending, for example, upon the size and arrangement of the drawer 212 and/or frame 154. Desirably, as shown in Figure 33, the upper portion of the rails 160a, 160b of the frame 154 and the projections 260, 262 from the sides 234, 236 of the drawer 212 are at least partially disposed within recesses 268, 270 formed in the bottom of the table top 214. Advantageously, this may help maintain the drawer 212 in contact with the upper portion of the rails 160a, 160b, which may help prevent the drawer from being unintentionally being disconnected from the table top 214.

[0143] One skilled in the art will understand that the drawer 212 could be connected to the table top 214 in a variety of suitable methods. For example, the drawer 212 could be rotatably connected to the table top 214. In addition, the drawer 212 could be connected to the table top 214 using other suitable designs and arrangements. For instance, the rollers or guides 250 could be connected to the drawer and the flanges 252, 254 may be connected to or formed by the rails 160a, 160b. The drawer 212 could also be connected to the table top 214 by using a pin or guide that is inserted into a track or pathway. Thus, one skilled in the art will appreciate that the drawer 212 could be connected to the table top 214 in a variety of ways depending, for example, upon the particular design and/or intended use of the table 210.

[0144] The table 210 may also include one or more components that are sized and configured to maintain the drawer 212 in the opened or closed positions. For example, as seen in Figures 30A-30C, a first projection 280 and a second projection 282 may

extend downwardly from the lower surface of the table top 214. The first projection 280 is preferably sized and configured to maintain the drawer 212 in the closed position and prevent the unintentional opening of the drawer. In particular, the first projection 280 preferably has a generally rounded exterior surface with a first side 284 and a second side 286 that are sized and configured to contact the upper portion of the rear wall 232 of the drawer. As shown in Figure 30A, when the drawer 212 is in the closed position, the upper portion of the rear wall 232 preferably contacts the first side 284 of the projection 280, which prevents the drawer from being unintentionally opened. When the drawer 212 is desired to be opened, as shown in Figure 30B, the rear portion of the drawer may move downwardly to allow the rear wall 232 to pass over the projection 280. On the other hand, the projection 280 could deform to allow the drawer 212 to be opened and then the projection could elastically or resiliently return to its original position.

[0145] As shown in Figure 30C, the second projection 282 is preferably sized and configured to prevent the drawer 212 from unintentionally being detached from the table top 214. For example, the second projection 282 may extend downwardly from the lower surface of the table top 214 a distance that generally prevents or prohibits the drawer 212 from being removed from the table 210. The second projection 282 may also have a first side 288 that is angled or configured to generally prevent or prohibit the drawer 212 from being removed from the table 210. In particular, the projection 282 may be sized and configured to prevent the drawer 212 from being detached from the table top 214. Thus, the drawer 212 cannot be removed or separated from the table 210. On the other hand, the projection 282 may be sized and configured to prevent the drawer 212 from being unintentionally removed from the table 210, but the projection

may allow the drawer to be removed if desired. For example, the projection 282 may deform to allow the drawer 212 to be opened and then the projection could elastically or resiliently return to its original position. It will be appreciated that other suitable devices may be used to secure the drawer 212 in the closed position and/or prevent the drawer from being unintentionally removed from the table 210. For example, locks, latches, detents and the like may be used to maintain the drawer 212 in the open or closed position.

[0146] Advantageously, if the table top 214 is constructed from blow-molded plastic, then the projections 282, 284 may be integrally formed as part of a one-piece table top. The projections could also be integrally formed as part of the table top 214 if the table top is constructed by using other process or materials. In addition, the projections 282, 284 may also be subsequently attached or otherwise connected to the table top 214. It will also be appreciated that the projections 282, 284 could have other suitable configurations or arrangements, and the projections could be located in any appropriate locations or positions.

[0147] As best seen in Figures 29-32, the drawer 212 preferably has a height that is generally equal to or less than the height of the inner surface of the lip 226. In particular, the lower surface of the drawer 212 may be generally aligned with the lower surface of the lip 226. Thus, the drawer 212 may be generally hidden from view when the table 210 is being used. This may improve the aesthetics or design of the table 210, but the drawer 212 could be of any suitable size and the lip 226 does not have to conceal the drawer from view.

[0148] As shown in Figures 34-40, the table 210 with the drawer 212 may have other suitable designs and characteristics. For example, the drawer 212 may be inserted

within an opening 228 in the outer lip 226 of the table top 214. In addition, the handle 242 may include a recessed portion 244 that is disposed along the front surface 230 of the drawer 212. Thus, one skilled in the art will appreciate that the table 210 and drawer 212 may have a wide variety of suitable shapes and configurations.

[0149] Although this invention has been described in terms of certain preferred embodiments, other embodiments apparent to those of ordinary skill in the art are also within the scope of this invention. Accordingly, the scope of the invention is intended to be defined only by the claims which follow.